

Part VI. Capabilities Assessment

This assessment analyzes current capacity to mitigate the effects of natural hazards and emphasizes the positive capabilities that should be continued. Within the WFRC, local governments have a diverse and strong capability to accomplish hazard mitigation; yet, enough similarity exists between each of the jurisdictions that the capabilities assessment could be completed by all five counties. General capabilities of the region and for each jurisdiction are addressed followed by any specific city and county capabilities.

The following areas were assessed to determine mitigation capabilities:

1. *Staff and Organization*
2. *Technical*
3. *Fiscal*
4. *Policies and Programs*
5. *Legal Authority*
6. *Political Willpower*

Staff and Organization

The assessment found that each county and most of the large incorporated cities within the WFRC region have extensive capabilities to accomplish mitigation. Most counties and cities are already protecting their citizens from natural hazards under one if not several departments within their governmental structure.

City and County Elected Officials

An elected council or a commission consisting of between three to seven members governs each county. Either a town or city council, consisting of between five to seven members, governs each municipality. The elected officials have the responsibility of adopting mitigation policies. All cities and counties receive their legal authority to govern from the State of Utah.

County General Capabilities

Listed below is a general organizational list of county/city governmental administrative areas involved in pre-disaster mitigation:

- Elected officials
- City Managers
- County and City Attorneys
- County Assessors
- County Clerks
- Human Services/Personnel Directors
- County and City Treasurers/ Finance
- Public Works Departments
- County Health Departments
- Police and Fire Departments
- County Emergency Management Agencies
- Special Improvement Districts

Emergency Management

All Utah counties, most of the larger cities and the universities have designated emergency management directors. The emergency management office is responsible for natural and man-made hazard mitigation, preparedness, and response and recovery operations.

Local Emergency Planning Committee (LEPC)

The mission of LEPC is to coordinate emergency preparedness for hazardous materials between all public and private emergency task disciplines. Many LEPC's have expanded their mandated hazardous materials function to include all hazards. In the Region, LEPC's are comprised of elected officials; law enforcement, emergency management, firefighting, emergency medical services, health, local environmental, hospital and transportation personnel; broadcast and print media; community groups; and owners and operators of hazardous chemical facilities that are required by federal law to have hazardous chemical emergency planning. Each county in the region has an active LEPC.

Fire/Emergency Medical Services

Most cities staff fire service organizations and all five counties have fire service. Following a national trend, several multi-jurisdiction fire districts have been formed with the goal to better provide fire and emergency medical services.

Public Works

Divisions within public works often include streets, engineering, water, power, wastewater and sanitation. The public works departments within the counties and larger cities are very sophisticated and currently account for much of the mitigation already taking place within the Wasatch Front Region. Several public works departments have storm water management sections and watershed management departments.

Health Care

The Region's hospitals and county health departments provide medical emergency preparedness and response. County health departments organize, coordinate and direct emergency medical and health services. The health department assesses health hazards caused by damage to sewer, water, food supplies or other environmental systems. They also provide safety information, assess disaster related mental health needs and services, and provide crisis counseling for emergency workers. Short of a pandemic disease outbreak, health departments within the five counties will likely continue to adequately staff, train and fund their missions.

School Districts

School Districts are located in all the counties. District administrators work closely with local public safety officials including law enforcement, fire emergency medical services, and public health to help to ensure that schools are well prepared for any kind of emergency.

Special Service Districts

For the purposes of this Plan, Special Service Districts (SSD) are defined as quasi-governmental agencies having taxing authority, providing a specific public service that may include; public transportation, fire, water, wastewater and sewer. These SSD's work closely with local public safety officials to ensure that these Districts are well prepared for any kind of emergency. In many cases, the districts participate in the county or city emergency preparedness committee for emergency coordination, planning and response.

Technical Capability

Throughout the plan update process, WFRC staff consulted with and utilized the technical expertise from a wide variety of resources listed below:

Jurisdiction Technical Expertise

Most of the counties and large incorporated cities within the WFRC have full-time planners, emergency managers, building inspectors, housing specialists and engineers on staff. Salt Lake County also employs a part-time geologist.

Geographic Information Systems (GIS)

Staff experience with GIS varies widely between the large resources of Salt Lake, Davis and Weber counties and the relatively small resources of Morgan and Tooele counties. All counties in the region have at least some staff to coordinate data processing and computer capabilities for GIS. GIS is a geo-referenced set of hardware and software tools that are used to collect, manage and analyze spatial data. (GIS capabilities are often found in other departments such as public works or information technology.) GIS is most beneficial when data from all departments and planning jurisdictions is inputted for analysis.

Public Safety Communications (PSC)

Public safety communications networks assure emergency communications through radio, microwave, telephone, satellite, internet, e-mail, fax and amateur radio. One of the most beneficial capabilities of PSC is providing cross communication between equipment and frequencies. PSC coordinates dissemination of emergency information to the media, the public and emergency personnel; activates internal information systems; acts as a liaison to elected officials; assists in the provision of emergency information and document the impact.

Public Works

Public works departments generally provide engineering, transportation, GIS, water, wastewater, sanitation (in some cases electric power) expertise and capability. As a team, public works personnel identify critical infrastructure and plan and prepare for emergency mitigation.

Other Technical Capabilities

Utah Division of Homeland Security (Utah DHLS)

Utah DHLS assisted WFRC in providing information on preparing for and responding to emergencies. The division serves as the liaison between local, state and federal emergency assistance. The division educates the public about earthquakes, hazardous materials, floods, communications, leadership, information technology, funding, coordination and supplies.

Utah State University (USU) Cooperative Extension

The USU Extension Service assisted with family and community data in putting research-based knowledge to work. Many of the programs and informational courses improve pre-disaster mitigation.

University of Utah (UofU)

The UofU was utilized as a technical resource for academic mitigation research and demographic data.

Wasatch Front Regional Council (WFRC)

WFRC is a valuable cooperative planning organization between Davis, Morgan, Salt Lake, Tooele and Weber Counties. WFRC is a resource for coordination, communication and planning expertise.

Fiscal Capability

All counties have limited fiscal capabilities to implement mitigation actions. Davis, Salt Lake, Tooele and Weber counties have larger tax bases and greater man-made hazard threats than Morgan County, thus allowing for more mitigation to be accomplished. When compared to the state, the budgeted expenditures of Salt Lake, Davis and Weber counties are in the top five. Tooele is at the top of the middle third, and Morgan is near the mid-point of the middle third. It is likely that each county can supply the local fiscal match for existing federal mitigation programs. Each county and most of the cities within WFRM have provided matching funds for federal grants in the past.

Utah State Code; Section 17-50-501 classifies counties into six categories based on population. The State of Utah grants graduated autonomy to counties according to class size (Table 5-3). The lower numbered class counties receive more authority from the State to regulate their own affairs.

Class 1	More than 700,000	Salt Lake County population 1,002,690
Class 2	125,000 – 700,000	Davis County population 292,054 Weber County population 216,289
Class 3	18,000 – 125,000	Tooele County population 50,686
Class 4	10,000 – 18,000	-
Class 5	3,500 – 10,000	Morgan County population 8,827
Class 6	Less than 3,500	-

Table 5-3. County Classifications

Policies and Programs

Connecting local land use management with natural hazard planning is an effective way to mitigate a community's risk. Many communities have plans, ordinances, agreements, maps, training, warning systems, etc. in place that help them to become more disaster resistant. One of the goals of this Plan is for communities to coordinate existing activities so that individual objectives become part of an overall plan of action.

Land Management Tools

Ordinances

Zoning ordinances designate the use of land and structures for the purpose of protecting the health, safety and welfare of residents and businesses. A zoning ordinance divides all land within a jurisdiction into zones or related uses. The zoning ordinance is comprised of two parts; the text and maps. Specific zones are usually created for residential, commercial, industrial and government uses. The map defines the boundaries of these zones and the text provides the regulations for uses that are permitted to exist in each of the zones.

Subdivision ordinances regulate all divisions and improvements of property including the division of land involving the dedications of new or changes of existing streets/roads.

Design controls regulate building and landscaping. Such controls can be tailored to require that new developments meet the specific needs of the area. For example, requiring flame resistant roofs in urban-rural wildland fire interface zones or requiring that trees and vegetation are planted on steep slopes to help mitigate landslide hazards.

Floodplain ordinances prevent building in special flood hazard areas and provide flood loss reduction measures to new and existing development. Floodplain management ordinances help to provide insurance to homes and businesses through the National Flood Insurance Program (NFIP). The NFIP's Community Rating System was implemented to encourage cities to manage floodplain activities that exceed the minimum NFIP standards. A community participating in the system will receive reductions in insurance premiums.

Building codes require certain standards of practice.

Easements

Easements can be a cost effective way to control development in hazard prone areas. Various land trusts can help secure easements that can then be conserved or preserved.

Planning

General plans serve as a guide for decision-making on rezoning and other planning proposals and as the goals and policies of municipalities attempting to guide land use in local jurisdictions. Each plan is recommended to include land use, transportation, environment, public service and facilities, rehabilitation, redevelopment, conservation, and economics. Also recommended are implementing recommendations including the use of zoning ordinances, subdivision ordinances, capital improvement plans, and other suitable actions that the municipality deems appropriate. General plans articulate the jurisdiction's vision while land use management codes implement that vision. General plans and land use management codes are being consulted, reviewed, and changed as necessary.

Emergency Operations Plans (EOPs) identify specific emergency actions undertaken by a jurisdiction to protect lives and property immediately before, during, and following an emergency. WFRM reviewed EOPs as part of this planning process.

Floodplain Management Plans identify steps and implementation strategies to effectively deal with floodplains. FEMA uses a scoring system is used to rate communities. Those with higher scores will receive higher discounts (in 5% increments) on flood insurance.

Storm Water Management Plans identify water policies for an entire watershed. Such policies can include: preservation of habitats, water quality and supply, open space development, land preservation, pollution prevention and construction regulations.

Environmental Reviews explain how development affects the land and its resources.

Capital Improvement Plans. Cities plan for costs related to infrastructure, public facilities, and public safety. These plans identify projects, prioritize them and identify ways of funding them. Such plans can include disaster reduction costs or mitigation measures in flood-prone areas or retrofitting buildings for seismic strengthening.

The jurisdictions that make up this Region have incorporated various mitigation measures. The following tables identify, by county, existing land use ordinances, management practices and plans currently in place.

[illegible]

DAVIS COUNTY														
	Bountiful	Centerville	Clearfield	Clinton	Farmington	Fruit Heights	Kaysville	Layton	North Salt Lake	South Weber	Syracuse	West Bountiful	Woods Cross	Unincorporated Co
Emergency Management Plan	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Storm water Management Plan	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Growth Management Plan	Y	Y	N	N	-	N	-	Y	N	-	-	N	Y	N
Community Rating System	9	9	N	N	N	N	N	N	N	N	N	9	N	N
General Plan Land Use Update	2008	2008	2008	2006	1998	2008	2008	2008	2001	2008	2006	2007	2006	2006
General Plan Transportation Update	2008	2008	2008	1984	1998	2008	2008	2008	2001	2008	2006	2007	2008	2006
General Plan Housing Update	2008	2008	2008	1984	1998	2008	2008	2008	2001	2008	2006	2007	2004	2006

***Sunset, West Point - unable to obtain information**

MORGAN COUNTY		
	Morgan City	Unincorporated County
Avalanches	Y	n/a
Earthquakes, Faults, Geologic Hazards	Y	Y
Floodplains	Y	Y
Foothills & Canyons	Y	Y
Groundwater	Y	Y
Habitat	Y	Y
Lakes, Streams, Riparian Areas	Y	Y
Landslides	Y	n/a
Mountains & Forest Zones	Y	n/a
Pollution & Air Quality (General Plan)	N	Y
Prime Agricultural Lands	Y	Y
Ridgelines	Y	N
Steep Slopes	Y	n/a
Watersheds	Y	Y
Wetlands (work with Army Corps)	Y	Y
Wild Land Fire	Y	Y
Sensitive Lands	Y	Y
Table 5-6. Natural Hazard & Environmental Quality Ordinance, Morgan County		

MORGAN COUNTY		
	Morgan City	Unincorporated County
Emergency Management Plan	Y	Y
Storm Water Management Plan	Y	N
Growth Management Plan	Y	Y
Community Rating System Classification	N	N
General Plan Land Use Update	-	2008
General Plan Transportation Update	-	2008
General Plan Housing Update	-	2008
Table 5-7. Natural Hazard and Environmental Planning, Morgan County		

Table 5-8. Natural Hazard & Environmental Quality Ordinance, Salt Lake County

SALT LAKE COUNTY																	
	Unincorporated Co	West Valley	West Jordan	Taylorsville	South Salt Lake	South Jordan	Sandy	Salt Lake City	Riverton	Murray	Midvale	Holladay	Herriman	Draper	Cottonwood Heights	Bluffdale	Alta
Emergency Management Plan	-	Y	Y	-	Y	-	Y	-	-	Y	-	Y	Y	Y	Y	-	-
Storm Water Management Plan	-	Y	Y	-	Y	-	Y	-	-	Y	-	Y	N	Y	Y	Y	-
Growth Management Plan	-	Y	Y	-	N	-	Y	-	-	n/a	-	Y	N	Y	Y	N	-
Community Rating System Classification	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
General Plan Land Use Update	-	-	-	-	2008	-	2008	-	2006	-	2000	2007	2006	2007	2008	-	2005
General Plan Transportation Update	-	-	-	-	2008	-	-	-	2006	-	2000	2007	2000	2007	2005	-	2005
General Plan Housing Update	-	-	-	-	2008	-	2008	-	2006	-	2000	2007	2000	2000	2008	-	2005

TOOELE COUNTY								
	Grantsville	Ophir	Rush Valley	Stockton	Tooele City	Vernon	Wendover	Unincorporated Co
Avalanches	N	N	N	N	N	N	N	N
Earthquakes, Faults, Geologic Hazards	N	N	N	N	N	N	N	N
Floodplains	N	N	N	N	Y	N	Y	Y
Foothills & Canyons	N	N	N	N	Y	N	N	N
Groundwater	N	N	N	N	N	N	N	Y
Habitat	N	N	N	N	Y	N	N	N
Lakes, Streams, Riparian Areas	N	N	N	N	N	N	N	N
Landslides	N	N	N	N	N	N	N	N
Mountains & Forest Zones	N	N	N	N	Y	N	N	N
Pollution & Air Quality (General Plan)	N	N	N	N	Y	N	Y	N
Prime Agricultural Lands	N	N	N	N	N	N	N	N
Ridgelines	N	N	N	N	Y	N	N	N
Steep Slopes	N	N	N	N	Y	N	N	Y
Watersheds	N	N	N	N	N	N	Y	N
Wetlands (work with Army Corps)	N	N	N	N	N	N	N	Y
Wild Land Fire	N	N	N	N	N	N	N	N
Sensitive Lands	Y	N	N	N	Y	N	N	N

TOOELE COUNTY								
	Unincorporated Co	Wendover	Vernon	Tooele City	Stockton	Rush Valley	Ophir	Grantville
Emergency Management Plan	Y	Y	N	Y	N	N	N	Y
Storm Water Management Plan	Y	N	N	Y	N	N	N	N
Growth Management Plan	Y	N	N	N	N	N	N	N
Community Rating System Classification	N	N	N	N	N	N	N	N
General Plan Land Use Update	2006	2001	-	2007	-	-	-	2001
General Plan Transportation Update	2006	2001	-	-	-	-	-	2001
General Plan Housing Update	2006	2001	-	-	-	-	-	2001

Table 5-11. Natural Hazard and Environmental Planning, Tooele County

WEBER COUNTY																
	Unincorporated Co	West Haven	Washington Terrace	Uintah	South Ogden	Roy	Riverdale	Pleasant View	Plain City	Ogden	North Ogden	Marriott-Slaterville	Huntsville	Hooper	Harrisville	Farr West
Avalanches	N	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Y	n/a	n/a	n/a	n/a	n/a
Earthquakes, Faults, Geologic Hazards	Y	-	-	-	Y	N	Y	Y	N	Y	Y	N	N	N	N	Y
Floodplains	Y	-	-	-	Y	N	Y	n/a	N	Y	Y	Y	N	N	Y	N
Foothills & Canyons	N	-	-	-	N	Y	N	Y	N	N	Y	n/a	N	N	n/a	n/a
Groundwater	N	-	-	-	N	N	N	Y	N	N	Y	N	N	N	Y	N
Habitat	N	-	-	-	N	N	N	N	N	N	Y	N	N	N	N	N
Lakes, Streams, Riparian Areas	Y	-	-	-	N	N	N	N	N	N	Y	N	N	N	Y	N
Landslides	Y	-	-	-	Y	N	N	N	N	Y	Y	N	N	N	n/a	n/a
Mountains & Forest Zones	Y	-	-	-	N	N	N	N	N	N	n/a	N	N	N	n/a	n/a
Pollution & Air Quality	N	-	-	-	N	N	N	Y	N	N	N	N	N	N	Y	N
Prime Agricultural Lands	Y	-	-	-	N	N	N	N	N	N	N	N	N	Y	N	N
Ridgelines	N	-	-	-	N	N	N	N	N	N	N	n/a	N	N	n/a	n/a
Steep Slopes	Y	-	-	-	N	N	Y	Y	N	Y	Y	n/a	N	N	n/a	n/a
Watersheds	N	-	-	-	N	N	N	Y	N	Y	Y	N	N	N	N	N
Wetlands	N	-	-	-	N	N	N	Y	N	N	Y	N	N	Y	Y	N
Wild Land Fire	Y	-	-	-	N	N	N	N	N	N	Y	N	N	N	n/a	n/a
Sensitive Lands	N	-	-	-	Y	N	Y	Y	N	Y	Y	N	N	N	Y	N

Table 5-12. Natural Hazard & Environmental Quality Ordinance, Weber County

WEBER COUNTY																
	Farr West	Harrisville	Hooper	Huntsville	Marriott-Slaterville	North Ogden	Ogden	Plain City	Pleasant View	Riverdale	Roy	South Ogden	Uintah	Washington Terrace	West Haven	Unincorporated Co
Emergency Management Plan	N	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	-	Y	-	Y
Storm Water Management Plan	Y	Y	Y	N	Y	Y	Y	-	Y	N	-	-	-	-	-	Y
Growth Management Plan	N	N	N	N	N	Y	N	-	N	N	-	-	-	-	-	Y
Community Rating System Classification	Y	Y	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Plan Land Use Update	-	2008	2004	2000	2001	2002	2007	-	2006	-	-	-	-	-	-	2007
General Plan Transportation Update	-	1997	2004	2000	2008	2007	2007	-	2006	-	-	-	-	-	-	2007
General Plan Housing Update	-	1997	2004	2000	2007	2002	2007	-	2006	-	-	-	-	-	-	2007

Table 5-13. Natural Hazard and Environmental Planning, Weber County

***Empty Cell= unable to obtain information**

Building Codes

International and national building codes have been adopted by all jurisdictions in the region. These codes are constantly in review for reasonable preparedness for disasters. Locally, building officials lobby for additions or exceptions to international and/or national building codes according to local conditions. Most insurance policies rely on the international and national building code standards for assurance.

The Insurance Services Office, Inc. manages the Building Code Effectiveness Grading System (BCEGS). This program was implemented in 1995 and assesses the building codes in effect in a particular community as well as how well the community enforces its building codes. The BCEGS program assigns each municipality a BCEGS grade of 1 to 10 with 1 showing exemplary commitment to building code enforcement. Insurance Services Inc. (ISO) developed advisory rating credits that apply to ranges of BCEGS classifications 1-3, 4-7, 8-9, 10. ISO gives insurers BCEGS classifications, BCEGS advisory credits, and related underwriting information.

Communities with effective, well-enforced building codes should sustain less damage in the event of a natural disaster, and insurance rates can reflect that. The prospect of lessening natural hazard related damage and ultimately lowering insurance costs provides an incentive for communities to enforce their building codes rigorously. FEMA also uses these scores in their competitive grant programs, giving a higher ranking to those projects with lower scores. The following table highlights the BCEGS scores for Wasatch Front Region jurisdictions.

DAVIS COUNTY	BCEGS Classification		Date
	Residential	Commercial	
Bountiful	3	3	2006
Centerville	3	3	2004
Clearfield	3	3	2004
Clinton	4	2	2005
Davis County	4	4	2006
Farmington	3	3	2005
Fruit Heights	3	4	2006
Kaysville	3	2	2004
Layton	3	3	2004
North Salt Lake	4	4	2003
South Weber	4	4	2004
Syracuse	4	3	2006
West Bountiful	99	99	2006
West Point	99	99	2003
Woods Cross	99	99	2006
Table 5-14. Building Code Effectiveness Grading Reports, Davis County			

MORGAN COUNTY	BCEGS Classification		Date
	Residential	Commercial	
Morgan	4	3	2007
Morgan County	4	4	2006
Table 5-15. Building Code Effectiveness Grading Reports, Morgan County			

SALT LAKE COUNTY	BCEGS Classification		Date
	Residential	Commercial	
Alta	99	99	2005
Bluffdale	5	4	2007
Cottonwood Heights	No rating	No rating	
Draper	3	2	2005
Holladay	No rating	No rating	
Midvale	3	2	2004
Murray	2	2	2005
Riverton	4	3	2005
Salt Lake City	3	4	2007
Salt Lake County	99	99	2005
Sandy	2	2	2004
South Jordan	4	4	2004
South Salt Lake	3	3	2002
Taylorsville	4	3	2005
West Jordan	3	3	2004
West Valley City	2	2	2004
Table 5-16. Building Code Effectiveness Grading Reports, Salt Lake County			

TOOELE COUNTY	BCEGS Classification		Date
	Residential	Commercial	
Grantsville	99	99	1999
Stockton	99	99	1999
Tooele	3	3	2003
Tooele County	2	2	2003
Wendover	99	99	2003
Table 5-17. Building Code Effectiveness Grading Reports, Tooele County			

WEBER COUNTY	BCEGS Classification		Date
	Residential	Commercial	
Farr West	4	3	2007
Huntsville	3	3	2003
Marriott-Slaterville	2	2	2006
North Ogden	4	3	2004
Ogden	3	3	2004
Plain City	5	5	2003
Roy	3	4	2005
South Ogden	3	3	2005
Uintah	3	3	2003
Washington Terrace	2	2	2004
Weber County	3	3	2005
Table 5-18. Building Code Effectiveness Grading Reports, Weber County			

Community Name	Entry Date	Effective Date	Class
Bountiful	10/01/91	10/01/91	9
Centerville	05/01/02	05/01/02	9
North Ogden	10/01/93	05/01/03	8
West Bountiful	10/01/96	10/01/96	9
Table 5-19 Community Rating System Scores, WFR			

Legal Authority

Local governments play an essential role in implementing effective mitigation. Each local government will review all present or potential damages, losses, and related impacts associated with natural hazards to determine the need or requirement for mitigation action and planning. In the counties and cities making up the WFR the local executive responsible for carrying out plans and policies are the county commissioners and city or town mayors/city managers. Local governments must be prepared to participate in the post-disaster Hazard Mitigation Team process and the pre-mitigation planning as outlined in this document. The cities and counties of Utah have the authority, through policing, to protect the health, welfare, and safety of their residents.

Political Willpower

Community Development Documents

Elected officials have adopted updated community development documents to reduce the risk of emergencies and disasters. Each county and most cities have updated Emergency Operation Plans, Land Use Management Codes, International Building Codes, and General Plans that include pre-disaster planning. In addition, there is support from residents for the Wasatch Front Regional Council's recently adopted Wasatch Front Regional Open Space Plan. In the Wasatch Front Regional Open Space Plan, property with higher probability for disaster is recommended for open space or lower intensity uses.

Emergency Planning Training Courses

Wasatch Front residents have supported emergency planning training sponsored by the State of Utah's Division of Homeland Security and local governments such as: CERT (Community Emergency Response Team), Local Emergency Planning Committees (LEPC), Hazardous Materials (HAZMAT), Site Plans and Ordinances, Real Estate Requirements, and Hazard Mitigation